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FIELD DIARY

Mr. Hornor Bailey

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July 20, Sunday.

Had a few specimens to make up and set a lot more traps. Wrote up notes & went in skinning. Very hot and dry and crops are suffering.

July 21 - Went down to Lawrence Lake, just above Brownsville and explored the marsh near the lake and got a good view from above on the hill.

A nice little log cabin is located on a point above the road overlooking the lakes which are closed to hunting and are easily protected. There are several bodies of water but the need of dams to throw the creek into them instead of draining them is needed, evidently.

July 23 Drove up to Winona and
found Ray Steel trying to reach
me on the telephone to go up
to Wabasha for the conference
with the Congressional Committee
on Conservation. Frederic
Walcott of Conn. is chairman
and Senator Harry B. Hawes of Wis.
and Kie Pitman of Nevada
are members.

Found the men not all there
so had to wait till July 25
for the hearing which took
the whole day.

The meeting was at the
summer cottage of Mr.

Geoth, of Chicago who
made a delightful host.
Others present were Mr. Piddington,
Ray Steel, Uhler and myself
from the Biological Survey.

Mr. Bates of the Forest Service,
Capt Culler and Mr. Shewaker
of the Bureau of Fisheries,
A couple of senators from Minnesota
and some of our wardens.
Also Mr. Bell of McGregor, Iowa.

In the forenoon of
July 25 Gen. Brown, chief of
Army Engineers stopped on
his way down the River
on the steamer General Allen and
had a pleasant conference with
the committee.

When he left the committee was
called to order by Mr. Walcott
and Mr. Riddington asked to tell
about the refuge.

He gave its history and
aims and objects and some of
the administrative problems,
then asked me to tell about

its animal life, past,
present and future.

I began with 1870 when I
first came up the valley in a
covered wagon; when passenger
pigeons, prairie chickens and
white tail deer were abundant
and then told of what there is
on the refuge and what can
be brought back.

Then Mr. Lehler told of
the duck foods and aquatic
vegetation of the refuge and
later we were asked some
questions.

Mr. Culler of the bureau of
fisheries made wild statements
of how many hundreds of young bass
had been taken from the stomachs
of great blue herons and wanted
to have them all killed off.
Mr. Lehler gave some real figures

on their food which showed them only little harmful to food fishes and I cited their value in destroying pocket gophers and mice in some of the western states.

The food of hawks was diseased. the predatory animals were asked about.

Returned to Winona and caught bus to La Crosse late in evening.

July 26 Left La Crosse after noon and went to La Crosse and down river to Ferryville but finding no place to stay went on to Snyville where we found convenient quarters near the refuge. This is at the lower end of the Winnskiel bottoms but we can run back to Ferryville in the morning to start.

July 27, Found the Game warden at Ferryville and planned a trip for tomorrow, then returned to Lynxville and set traps, took photographs, wrote up notes and got ready for next work tomorrow which will be Monday.

July 28, Went to traps before breakfast and then ran up to Ferryville where the refuge warden, Hurley C. Lawrence, went with us with his boat and waded an all day circle of the upper part of the Wm. Creek Bottoms, following the Wm. Creek Slough around the closed area and then down through Garden Slough through the meadows of it and all both sides into the marshes and lakes and lotus beds where the

Ducks and muskrats live.

The Bottomlands are large and almost all in the refuge so they form a well defined area for administration and development. They include two large areas entirely closed to hunting and extensive areas outside where hunting and trapping are controlled or open in accordance with state laws.

The refuge area is somewhat different from that of the Wabasha and La Crosse regions; more uniformly low and practically all subject to flood in high water.

There is much good timber of the same bottomland trees as farther north but little oak or basswood. Silver maple, birch, elm, ash, box elder,

Cottonwood and willows are the main timber of which there is abundance of cottonwood and willow along the shores. Nut trees are almost entirely lacking and there is doubt of Pecan trees doing well on such low bottoms. Squirrels are there but apparently it is their work eating the bark from silver maples. One fox squirrel was seen and a few grayed trees.

The surrounding bluff and gulch country is better for squirrels.

The marshes and lakes and sloughs cover extensive areas and are ideal for wood ducks, other ducks, muskrats and such game.

The lakes are generally full of lotus (*Nelumbo lutea*) now in full flower and a wonder of beauty and interest. The flowers often grow out on dry ground or solid mud or sand and stand four feet high on waving stems, the beautiful fragrant flowers eight or ten inches across and the rich satin green leaves one to two feet across. Few flower displays are more beautiful and the abundant nuts from their seeds are valuable duck food.

Around the shores and over extensive marshes the tall three cornered sedge, *Scirpus fluvialis*, grows densely and often higher than our heads. its bulb

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bearing base or rootstalk
forming one of the very important
muskrat and duck ponds.

Scirpus validus grows in places
but less abundant than farther north,
while *beaked*, *bullrushes*
and many other sedges fill up
the marsh spaces. There is
less grass than farther north.

The three common *Sagittarias*
are abundant, *Potamogetons*
of many types fill the water in places
Lemna and other duck weeds are
abundant, wild rice was seen
in only one little strip along
a shore and it was not half grown.

Najas is very abundant in
almost pure stands for miles along
the margins of sloughs and lakes
or over some whole lakes.
It is a glorious plant and

forms one of the most attractive
flower displays I know of.
The thousands of blossoms
waving on stems two four feet
tall and often 4 to 10 inches across
are delicate pale yellow with orange
tipped centers and delicious fragrance
which the great leaves, $1\frac{1}{2}$ to
 $2\frac{1}{2}$ feet across are like green
velvet and those standing erect
hold silvery globules from the
morning dew. These in the
water would easily hold up a
rail and probably a little green
heron. My field glasses
laid on one did not make a
dent in it.

The seeds from their numerous
cups must furnish a lot of food
for ducks and other life.

Collected 3 species of ourselves for lunch.

July 29
Covered the lower half of
the Wimmerick Bottoms by boat
making numerous short trips
in & marshes and lakes that
we could not enter by boat.
Went clear around and partly
through the closed area which
is not quite so large as the
one explored yesterday, about
1000 acres roughly while
yesterday the closed area was
near 2500 acres.

It is the same type of
country, low forest and
much marsh and lake or slough
land, wonderful muskrat and
water fowl country.
Lots of food plants and great
numbers of muskies, frogs,
crawfish, fish and turtles.
Saw an 800 foot swim

hauled and the game fish,
bass of 3 kinds, sunfish, pike,
and pickerel put back while the
shupshad, red horse, carp
and dogfish were taken to
market. They would not all
together run over 200 or 300
pounds of fish and I should
think two thirds of these went to
market.

They gave me a shupshad,
a skipjack and a moorage to
cook for lunch. The shupshad
was delicious, the moorage fairly
good, the skipjack good but
soft and bony. I broiled
them on sticks and they were
the best of their kind.

Have not tried frogs or crawfish yet.
They had two large soft shelled turtles
and two hard shelled in the net.

Beautiful weather.

Zanesville, Wis. July 30, 1930

Quercus bicolor

" *alba*

" *rubra*

" *macrocarpa*

" *coccinea*

Betula alba

" *nigra*

Acer saccharinum

" *dasycarpum*

Lilba americana

Ulmus americana

" *fulva*

Juniperus virginiana & *communis*

Ostrya americana

Fraxinus

"

Carya alba

" *poecina*

Inglaux nigra & *cinnerea*

Populus deltoides, *trémuloides*, *grandidentata*

Salix

5 species

Hackberry

July 30

Took a day to write up reports and do some collecting.

Austin got a *Synaptomys* and a *Lepus*. Last night we had more *Microtus austreus*, 3 very large ones, weighing 50, 47, and 44 grams.

Set more traps, hoping to get *Eutamias* and *Sorex*.

A cool and perfect day.

Crabapple,

Flamapple,

Cornus alternifolia

" *coccinea*

Corylus

Ajowanwalis

Xanthoxylon

Staphylea

Rubus 3

Ribes 3

Rosa 2

Celastrus scandens
Vitis riparia
Ampelopsis
Menispermum
Smilacina
Sterptopus
Falcatella
Rhus glabra
 " *typhina*
 " *toxicodendron*
Ceanothus
Sasaparilla
Spikenard
Ginseng
Acerum
Hepatica
Aquilegia
Thalictrum
 Ferns 9
 Mosses
 grasses

July 31, Hurley C. Lawrence
 came down to Lynsville with his
 motor boat and took us down the
 river to the lower end of the
 Harpers Ferry bottoms and all
 around them and through many
 of the sloughs and lakes so
 we got a good idea of the
 country.

It is rather low and not much
 above extreme high water.
 About half of the areas are
 timber, mainly willow, cottonwood,
 maple, birch, elm, ash and
 on a few of the highest spots
 a few swamp oaks and basswoods.

The lakes and sloughs are
 generally bordered with the
 three kinds of *Sagittaria*,
 river rush, and in places
 lotus or white water lilies
 but the lotus is not so abundant
 or fine as up at Ferryville.

Caught a *Ptilinopus* and *Anthus*
 caught 3 half grown *Synaptomys*
 and lots of other mice & birds -
 Lawrence brought us two *Myotis* from
 Laramie.

Saw a woodchuck on a sand bar
 in middle of a wide slough. He
 was all wet and did not like
 to cross across the other side
 to the woods.

Fox squirrels are mainly on the
 river flats. Gray squirrels mainly
 on the bluffs.

Spot a bullfrog for lunch and
 ate him legs and back and all. very good.

His stomach contained a young carpenter
 about an inch and a half long and the
 indistinct remains of one that must have
 been 2 inches long.

These muskrats have been
 closely trapped and are scarce
 but coon and mink tracks were
 common. No wild rice was
 seen and but little grass.
 The muskrats were feeding mainly
 on leaves and stems of *Sagittaria*
latifolia but in one place had
 been eating the flowers and buds of
 lotus.

There would be food for
 a large number of beavers
 but the country is not as
 good for them as farther
 north. There is little open
 dry ground for turkeys and
 prairie chickens but plenty
 of good woodcock, wood duck
 and other water bird range.

A few ducks, teal, sawbill
 and wood ducks were seen.

August 1, 1930

Left Lynxville, Wisconsin at 1 P.M. with Oliver Austin in his little roadster and Michael Prairie DeChene inside of a hour, crossed the ferry to McGregor, Iowa and drove up to the Wild Life School on top of the bluff overlooking a wide stretch of the Mississippi River Bottoms. Found a little cottage, "The Nifty", just right for what we needed located right there.

Austin decided to go back to St. Paul so started before dark and expected to be in St. Paul before midnight.

A hot day.

Aug. 2 Got our baggage
from express office and
unpacked and got down
to work on reports and
specimens. Saw a little
of the country and got
our bearings for next
work.

Aug. 3. Sunday and very
hot. 100° all day in
the coolest part of our cabin
and 130° when I laid the
thermometers outside in the
sunshine on the grass.
Wrote letters and some
on reports. but did not
try to do much outside

Aug. 4. The Wild Life
School began at 9 AM
and I was called on for
a general outline of the
help we could give them
while here for a week.

In evening gave an
illustrated talk on The
Animal Life of The Miss.
Valley Wild Life Refuge
Wrote an report between
times.

Aug. 5, M^{rs} Gregor, Iowa
Mr. Riddington, Mr. Stule
and Capt. Culler came to
Morning Session of Wild Life
School and gave talks
I was asked to preside at
the morning session.

Aug. 4. Tue. - Yreka
Mrs. Bailey gave a talk
on bird studies in morning
session and I gave talk
on Grand Canyon in
evening with lantern slides.
Attended some important
lectures by Dr. Pammel
Dr. Schimel and Mr. Fitzsimmons.

Aug. 7, Mr. & Mrs. Gregor &
Berkeley State Park beyond
Strawberry Point, on all
days trip by auto in
very rugged, interesting
country. Great springs
boil out of the rocks and
make cold clear trout
streams and the State trout
hatchery is located here.
Many old natural white pines
occur and some other
northern plants and a
collection of small mammals
would be of great interest.
Gave talk on beavers
in evening with motion pictures.

Aug. 8th Friday, M^{rs} Gregory.
Was asked to preside at
morning session of The Wild
Life School and gave a talk
on hunting and trapping
by the boys.

Was asked to preside
at evening meeting so
did not get much of my
writing done but heard
some good lectures by
Dr. Pammel and Dr. Schuchert.

Aug. 9 M. C. Ugors, Saturday
gave a talk in morning
on Predatory Animal Control
taking place ahead of Dr.
Bode who followed me with
an excellent talk on Conservation
of our forests.

Dr. Schmidt gave an excellent
talk on Surface Geology in Iowa.

We had a bird class
in the morning from 6 to 7:30
and went on boat trips to the
Lotus beds in afternoon 4 to 7
with Capt. Fred Bell.

A cool and pleasant day
Evening talks by Dr. Kay on
glacial geology and singing by
the Cotton Flower Singers of Miss.

Aug. 10 Sunday, McGregor

Breakfasted with the Biechles at their cottage on the Ridge and walked over to the Golf Grounds by the woods trail along a north slope covered with dense vegetation, blackberries, spindlewood, Sassafras and ginseng under the tall trees, many white birches ^{aspens} and northern plants.

Saw one ruffed grouse and red bellied woodpecker and other small birds.

The view from the river bluffs is superb, both north and south.

Aug. 11, Monday, M. C. Gregor
Left M. C. Gregor for Savanna
at 1:30 P.M., down the river
about 100 miles and across
to the Wisconsin side -
A cold morning and pleasant
day.

Followed down the Iowa
side of the Mississippi River
to Dubuque but found
the train went no further
so had to wait till 7:20
P.M. for a train to Savanna.

The river bottoms and
islands are about as at
M. C. Gregor but generally
not very extensive,
Forest and other vegetation
is rich and dense and
many fields of lotus and
Sagittaria and Sedges are
passed.

Aug. 12 Tuesday, Savanna, Ill.
Arrived last night at 9:30
P.M. & came to the Radke Hotel.
No word from our warden,
Albert J. Cheney of Billings,
Iowa who was to meet me
here. Arrived 10 A.M.
and we started at once up
the river along the edges of
the Wild Life Refuge across on
the Iowa side & the Military
Proving Grounds Reservation on
the Illinois side. Ran up
to the administrative building
about 10 miles above Savanna
and explained to Major Graham
in charge that I wanted to go
over the reservation to see what
kinds of native game it was
best adapted to. He detailed
Capt. W. F. Henry to take us
Mr. Cheney and myself, over

the Reservation which he did in a very satisfactory way, showing us all of it on the mainland and sandy prairies and the edge of the river bottoms.

It contains about 12000 acres, more than half of which is on the prairies, possibly 4 or 5 thousand acres being on the islands and bottomlands of the Mississippi, on the east side.

The uplands are mainly light sand with a flora of eastern Nebraska including prairie plants such as *Rhus trilobata*, *Amorpha canescens*, *Artemisia ludoviciana*, *Grappolum* Sand cherry, *Ceanothus*, *Plantago bractiosa*, *Opuntia vulgaris*, Wild plum, chokecherry, black cherry, grapes, elderberry, *Rhus glabra*, *Gramma* grass and *Andropogon*.

In places there are elms and oaks
maple, boxelder, ash, birch, aspen,
cottonwood and willows on low
ground and junipers on the hills.
prairie rose and black locust and
Honey locust.

Meadowlarks - mowing doves
vesper sparrows and swallows
were abundant.

A badger den was in the wood,
3 Wolves, hognoses, were killed last
winter.

Foxes of both kinds are
Minks, common,

Skunks - spotted & striped, "

Raccoons "

Moles "

Muskrats abundant

Beavers ✓

The Reservation is well
adapted to Buffalo, elk, antelope
and deer, and there is a big
man fence 10 feet high around
several hundred acres where
Buffalo, elk and antelope could
be kept. A thousand white-
tail deer could find food and
cover to their liking on the
upland and bottomlands.
A few prairie chickens are
still found on the prairie and
some ducks on the islands.
Lots of bobwhites and a few ruffed
grouse. Wild turkeys would
do well and were native here
many years ago.

The islands and bottomlands are well forested with Cottonwood, willows, elms, maples, birch, ash, boxelder and shrubs and vines. Fox Grapes are very abundant.

There are many sloughs and lakes and marshes on the bottom and wood ducks and other ducks breed. Blue herons, black cranes and little green herons are common. and a few yellowlegs and pintails. sandpipers were seen and swallows of many species fairly swarm. Kingfishers are common and Crows and wood peckers.

Found old signs of beavers last winter and lots of cuttings and saw a few muskrats and lots of tracks. Coon and raccoon tracks are common. So are woodchucks.

Came on up to Bellevue at about 7 P.M. and stopped at the Hotel Wicks for the night.

The river is very low and we could not follow many of the sloughs through the refuge.

No lotus or wild rice seen.

One cave near Saramma, about a mile above. Bluffs not so high as farther north but were abrupt.

Scenery beautiful in many places, especially so at Bellevue.

Night Hawks - a dozen at Bellevue
Swallows - 300 of all kinds "
Swifts - abundant "

The islands and bottomlands

Aug. 13, Left Bellevue & am for
Dubuque by water boat

Sycamore trees near Bellevue
Pin oaks, big trees on island "
Peanut, one bearing tree 12
miles below Dubuque

4 elms

Cottonwoods

Willows

2 maples

Poplars 1

Ash 2 or 3

Lonest 2

Hawberry

At north end of Military reserve
a large tract of ancient forest of
magnificent elms, cottonwoods, pine
oaks, ash, maple and honeylocust
was valued at \$1,000,000 — now and is
worth it tho' it would not sell
for that now.

Pine oaks are one of the best wood
duck foods. Wood ducks also are
said to eat wild grapes.

Two lotus lakes opposite
Buller's, one on Military Reserve —
and one on private land. They died
have wild rice but it died out,
supposed to be killed by carp.

The Iowa shoreline is abutted
with the C.M. & St. P. Ry. along the
banks. In many places the right
of way runs from the river to top of
bluffs and includes valuable
game land all along prairie opposite
Savanna to Wabasha. Why not
get them to add this to the Wild
Life Refuge for protection of the
game with our wardens to
help patrol and protect it?
At present no hunting is allowed
on the right of way and it is
essentially a refuge.

The bluffs are well timbered with
oaks, walnut, hickory, Black gum,
boxelder & numerous berry bushes.
The trees are cut off between the
railroad and river where close.

The best thing about this part
is that it has passed.

The land from Kellom to Duquesne
on the river bottoms & islands that
is not farm land but good
timber land is held at 30 or
40 to 60 and 100 dollars an acre
according to the stand of timber
on it. If without timber it has
little value. The soil is rich
and timber grows very fast &
very large.

Arrived at Duquesne at
11:30 and had to wait for a
train north till 4 P.M. C. & P. & Q.

Up along Wisconsin side
of river to Prairie du Chevre.
Good bottomlands and
islands. A big lake of lotus
flowers just south of Potosi.

Many lotus lakes

Cassville -

Redwing blackbirds, big flocks

One big Sycamore in Cassville

Reached M & Grogan 7 P.M.

The best thing about this is...

Aug. 14 Went from
M^cGregor over to Prairie
du Chien and across the
mouth of the Wisconsin River
to the Nelson Dawy State
Park in Wisconsin in P.M.

Gave talk in ^{forenoon} ~~evening~~
on Bird Life of the Wildfowl
Refuge. Returned to
M^cGregor at 4 P.M.

Aug. 15, Gave talk on
Bats at Wild Life School
in morning and a general
talk on the Wild Life School
in evening.

Crossed to Island and
lake on river bottoms with
Mr. Rose and listed
birds over there, including
a flock of 24 Black ducks.

Aug. 14 Saturday,

Went for all day trip
up river on the steamer
Capitol as far as Hastings
at upper end of Winnishick
and returned to McGregor
at 6:30 P M.

Talked of Wild Life Refuge
and its possibilities most
of day to groups of people
on the steamer.

We saw the whole length
of the Winnishick Bottoms
and had good views from
the upper shore.

A pleasant day and
very interesting people,
including the faculty and
students of the school.

Aug. 17, Sunday, McGregor,
Packed up ready for start
early in morning.

In P.M. drove over to
Elkader with the Elwells
and called on Mrs. Bell
and her mother, Mrs. Preston
who was born there over 80
years ago and knows the
early days of the country
back to Indian and buffalo days.
Saw much beautiful farming country
with good crops and lots of
hogs and cattle.

Harvest is over and the
thrashing nearly done.
Corn is full grown and a
good crop generally.
Clover is getting ripe and
buckwheat in blossom.

Aug. 18 Monday, M^cGregor,
Left M^cGregor 8:04 AM
on the C.M. & St. P. for Wivona
and came slowly with many
changes up the river valley
and much of the way up the banks.
Saw plenty of Lotuk up to near
La Crasse but none above.
White and yellow waterlilies were
abundant at Brownsville
and La Crasse & above.
Cardinal flowers abundant
near Reno on shady bottoms.
Arrived at Wivona 11:15 AM
went to Hotel Wivona and to
the Wild Life Refuge office.

Aug. 19 & 20

Writing reports at Wivona.

Aug. 21 - Finished manual report and gave to Mr. Steele to have it copied.

Went out to Woodlawn Cemetery west of Lake Wivona and saw a *Citellus 13lineatus* in the cemetery and a dead one in the road. Also a Red squirrel and several gray squirrels and a few gray squirrels in town. All are the large, dark bellied hypophaeus.

The red squirrel was the first found this summer. Was chattering noisily in a tree. Many cone scales and cones were scattered over the ground under spruce trees.

Cool and pleasant, Very dry.

Aug. 22 Left Wivona at 11:35
A.M. and reached St. Paul at
2:35 P.M. up west side of river.

Country very dry, but grain
all harvested and corn fairly
well matured. Most of sloughs
dried up and river very low.
Hillsides all brown.

At St. Paul went direct to
Old Capitol Bld. and saw the
assistant game warden Mr.
Forrest and arranged for
taking the beavers as soon as
the fair is over.

Also saw Fred Surber
and talked of the mammals of
the Wild Life Refuge.

Then continued to Minneapolis
where we went to the Hastings
Hotel, away out on 12th St.
near Hennepin and located
for the night.

Aug. 23 Saturday.

Left Minneapolis on bus at 4 PM and reached Elk River at 5:15 PM, and drove out to Chester Hills.

Saw Dr. Roberts in morning and went to Museum and got supplies and Dr. Roberts agreed to find out about tags for beaver tails.

Aug. 24 to 29 at Elk River
writing reports.

Aug 30 - to Minneapolis and St. Paul to see Raphael John, Mr. Fraser and Dr. Roberts about field work.

Aug. 31, Sunday.

Visiting among the old neighbors.

Aug. 31 Sunday at Chesters
Visited among the old friends
and neighbors and found some
new friends among the old residents.
A hot day, still dry

Sept. 1 Monday -

Left ~~Wheeler~~ Vale at 9 AM and
drove to Princeton, Mills Lake and
Grand Rapids, then west to Cass Lake,
about 225 miles, arriving at 5 PM.

Struck Canadian zone between
Princeton and Millaca where the white
pine and jack pine begins and spruce
and tamarack swamps are abundant
Norway pine and cedar swamps
and balsam begins at Lake Mills Lake
and continue the rest of the way.

Most of the old heavy white pine
and hemlock forest has been cut
and burned and some of the ground
chared but it is poor farm land.
Lots of wild hay grows naturally.

but it has little value.

Small grains do well as far as Mill Lake, but not so well beyond though there are some fairly good farms as far up as Grand Rapids. Reformation is retarded by repeated fires.

Timbering is a thing of the past. Recreation, fur and game are things of the future.

Stopped in many places both in swamps and on uplands to see if any signs of snowshoe hares could be found but they are very scarce.

There are numerous old cuttings of three or two winters back but very few of last winter.

White cedar, aspen, service berry and willow have been cut but more cedar than any other.

Saw a fox squirrel at Mill Lake, ran across the road just ahead of us.

Saw a little deer sign above Aiken.

One ruff grouse had been killed by auto in road.

Lots of crow, black birds and a thousand swallows.

A cold day at raining in morning. Clear and cold at night.

No trace of forest fires and only one peat fire - west of our River.

Sep 1. 3, Tuesday Cass Lake

Saw Supervisor Howard Hopkins first thing in morning and he sent G. L. Fenger with me to inspect tree plantings for rabbit damage on the Chippewa Nat. Forest.

Found many of the first year sets gone and many of those remaining injured or killed by recent hot dry weather.

Most of the little trees a foot high or less have been injured by having the twigs cut off by rabbits or deer 2 or 3 or 4 years ago. Showed him the difference in rabbit and deer cutting and gathered a bunch of twigs cut by each.

No signs of mouse work or gophers or squirrels.

Rabbits are very scarce now and were lost winter but were

About 1925, when great numbers of
bushes and young trees were killed.
Most of the small cedars and
some little pines and spruces were
then cut and injured, killed.

The rabbits are partial to white oaks,
bush maple, willow, hazel,
Rose, sloe, sycamore, serviceberry

Deer are partial to bush maple,
pin cherry, willow, hazel, aspen,
Serviceberry, honeysuckle and
Oenanthe, of which the terminal
buds are bitten square off and
leaves of the pin cherry are
scarcely eaten.

The rabbits cut larger
sticks and slice them diagonally
with tooth marks across the middle
of the cut.

No beaver signs could
be found around Cass Lake.

Saw Prof. Henry Shirley,
studying effects of light on
young trees.

Also, the local game warden
Mr. Wright who was going
up to some beaver country
above Black Duck.

Red squirrels are beginning to
cut up pine cones to eat
but not yet to starve.

In P.M. went over to
Stasea Park and Lake
and photographed the corner
of the Mississippi River.

The Park contains large
areas of virgin timber,
largely Norway pine.

Drove south to Deer Park
and Wadena where
we stayed over night.

Nearly ran over an old
hired ruffed grouse in middle of
road. One car passing close on
his right and we on her left,
almost simultaneously but she
never took a step, turned around
and went back with camera but
went slow and she ran across
road and into woods. Then two
half grown young flew up from
far edge of road and the rest
of her brood were behind so
she did not know which
way to go.

Many are killed in the roads
but need not be if drivers
were careful and tried to
avoid them. A penalty
should be enforced for killing
anything with auto.

Found a full grown male
mink in the road, run over by
a car today. Saved for specimen.
A few birds and one cottontail killed
in road. Yesterday a ruffed
grouse, frogs and snakes
birds and rabbits and squirrels.

Sept. 3 Wednesday.

Returned from Wadena
via Sank Center and St. Cloud
to Elk River, through mainly
good farming country along
the edge of the big prairies.
Saw a number of large lakes
not shown on the road map.

Found dead feral rabbit
in road run over by automobile
and skinned for specimen.

Saw several muskrats, ground
squirrels, gray squirrels,
cottontails, mice, birds,
frogs and turtles, and many
birds run over.

Sept. 4 Thursday, Elk River,
Packed up ready to start
for home. Wrote final letters
and telegrams to close up work.
Received letter from Steell
canceling all beaver work
on refuge.

Sept. 5 Friday, Took N.P.
train at Elk River, at 7
PM and changed to C B & O
at St. Paul, leaving there
at 8:45 for Chicago

Sept 6, Arrived Chicago 8:10
AM and left on B & O.
Capitol Limited at 1 PM
for Washington.

Sept 7 Sunday. Arrived
Washington 9:30 AM

Handwritten text on the top page of a lined notebook. The writing is very faint and illegible.

Blank lined page on the bottom of the notebook.

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